DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES Office of Structural Materials

Quality Assurance and Source Inspection

Bay Area Branch 690 Walnut Ave.St. 150 Vallejo, CA 94592-1133 (707) 649-5453

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Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 69.15

SOURCE INSPECTION REPORT

Resident Engineer: Pursell, Gary **Report No:** SIR-000687 Address: 333 Burma Road **Date Inspected:** 18-Jun-2009

City: Oakland, CA 94607

OSM Arrival Time: 0 **Project Name:** SAS Superstructure **OSM Departure Time:** 12 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Changxing Dao, Shangha

Quality Control Contact: ABF Paint Supervisor William (BQ) ality Control Present: Yes No

Material transfer: Yes N/A **Sampled Items:** Yes No No N/A **Stock Transfer:** N/A N/A Yes No OK to Cut: Yes No **Rebar Test Witness:** Yes No N/A **Delayed/Cancelled:** Yes No N/A

Surface Preparation and Coatings Application Other:

Bridge No: 34-0006 OBG L2W, 5BE, Tower L1S **Component:**

Bid Item: Lot No: 77,78,79,80 B226

Summary of Items Observed:

On this date Caltrans Office of Structural Materials (OSM) Quality Assurance (QA) NACE III coating inspector, Mr. Donald Jordan arrived on site at the Zhenhua Port Machinery Company (ZPMC) facility at Changxing Island in Shanghai, China. The purpose of the coating inspections are to monitor the surface preparation and coating applications for the SAS Bay Bridge project. This QA NACE III coating inspector observed the following:

The following inspections were performed by Caltrans QA Coatings Inspector Jordan, American Bridge/Fluor Enterprises, a JV (ABF) Paint Supervisors William (Bill) Oak and Don Walton, ABF QC Zhou Qun Song (Joe), ABF QC David Duon, ABF QC Shi Zhaoyuan (Stone), ABF QC Zhou Wei, ABF QC Wei Chang Yun, ABF QC Sun Xiong, International Paint (IP) Onsite Technical Services Engineer (OTSE) Peng Zi Li, IP OTSE Alpha Chen, Zhenhua Port Machinery Company, LTD (ZPMC) QC Manager Xia Yong, ZPMC QC Zhang Diang, ZPMC QC Dong Yao Fei and ZPMC QC Guo Wan Li, ZPMC QC Xie Yong Gang, ZPMC QC An Ming, ZPMC QC Dong Ji Fang and ZPMC QC Xia Yu Juan.

All Notices of Inspection and Quality Control (QC) Inspection reports signed by Mr. Jordan on this date identify receipt of the documentation and are not intended to be identified as acceptance or rejection of the work performed.

Tower Lift 1 South

Caltrans QA Coatings Inspectors received a Notice of Inspection to attend a joint inspection with ABF and ZPMC QC for Tower L1S internal. After looking at the abrasive blasted surfaces it was determined by ABF that the base metal did not meet the Society for Protective Coatings (SSPC) SP10 Near White Metal Contract requirements.

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ZPMC was informed by ABF QC that further abrasive blasting was required. ABF QC's determination was verified by Caltrans QA Coatings Inspector Jordan. The contractor began performing the repairs as directed by ABF QC personnel.

Second abrasive blast inspection

Caltrans QA Coatings Inspectors received a second Notice of Inspection to attend a joint inspection with ABF and ZPMC QC for Tower L1S internal. After looking at the abrasive blasted surfaces it was determined by ABF that the base metal did not meet the Society for Protective Coatings (SSPC) SP10 Near White Metal Contract requirements. ZPMC was informed by ABF QC that further abrasive blasting was required. ABF QC's determination was verified by Caltrans QA Coatings Inspector Jordan. The contractor began performing the repairs as directed by ABF QC personnel.

OBG Lift 2W

Caltrans QA Coatings Inspectors received Notices of Inspection to attend joint inspections with ABF and ZPMC QC for surface preparation by abrasive blasting and primer coat application on OBG L2W U ribs in the weld seam joint area. Upon arriving at the site of inspection ambient condition readings were taken by ABF QC personnel. The ambient conditions were found to be unacceptable for coating application. The area requires re-blasting after the ambient conditions are favorable. At that time Caltrans QA Coatings Inspectors will inspect the surfaces of the base metal to insure they meet the SSPC SP10 Near White Metal Contract requirements prior to primer coating application.

OBG Suspender Brackets

Caltrans QA Coatings Inspectors received Notices of Inspection to attend joint inspections with ABF and ZPMC QC for surface preparation on 2 pieces of OBG suspender brackets prior to finish (mist) coat application. The inspection revealed gaps exceeding 150mm need to be caulked. The contractor was applying Interzinc 52 to damaged spots on the primer. The primer was still wet. The suspender brackets were not ready for finish (mist) coat application.

OBG 5BE

Caltrans QA Coatings Inspectors received a Notice of Inspection to attend a joint inspection with ABF and ZPMC QC for surface preparation by abrasive blasting on OBG 5BE bottom plate. After the inspection was completed the surfaces were determined to successfully meet the SSPC SP10 Near White Metal Contract requirements. Residual Chlorides (soluble salts) tests were performed on the abrasive blasted surfaces. The Bresle Patch method was used to test for Residual Chlorides. The test results showed that the surface was acceptable to be coated with Interzinc 22. The highest registered reading of salts contamination was 10 microsiemens per square centimeter which is below the contract maximum of 10 micrograms per square centimeter (92.5 microsiemens per square centimeter). Ambient conditions were within Contract required parameters. Surface profile Testex Tape was used by ZPMC QC personnel to record the blast profile. The Testex tape was measured using a dial micrometer. The micrometer readings of the Testex Tape were within the contract requirements of 40 and 86 microns. Ambient conditions were within Contract required parameters. The surfaces to be coated were blown down again with compressed air to remove dust. After the dust was removed, Interzinc 22 primer was applied within the specified 8 hour window after the start of abrasive blasting. The coating was mixed under the supervision of International Paint's Onsite Technical Services Representative, QC personnel representing ABF and ZPMC.

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Fabrication on assembled components of the OBG's and Towers are not complete. Outstanding weld repairs have not been performed. Coating damage requiring re-blast is expected.









Summary of Conversations:

There were no relevant conversations on this date.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Mazen Wahbeh (China) +8613472477571, who represents the Office of Structural Materials for your project.

Inspected By:	Jordan,Don	Quality Assurance Inspector
Reviewed By:	Carreon, Albert	QA Reviewer